WHAT IS CLAIMED IS:

1. A medical instrument comprising an elongate member and a plurality of hollow needle elements connected to one end of said elongate member, said needle elements extending in a direction away from said one end of said elongate member, said needle elements each being convex on an outer side facing away from others of said needle elements and concave on an inner side facing said others of said needle elements so that said needle elements together define a bulbous ovoid shape, with tips of said needle elements angled inwardly at a distal tip of the medical instrument.

2. The medical instrument defined in claim 1 wherein said elongate member is a tubular member having a lumen, said needle elements all communicating with said lumen.

3. The medical instrument defined in claim 2 wherein said needle elements are at least partially made of resilient material with a memory so that said needle elements are alternately disposable in a storage configuration and said bulbous ovoid shape.

4. The medical instrument defined in claim 3 wherein said needle elements are disposable in said storage configuration by the application of an external force, said needle elements having an internal spring bias tending to restore said needle elements to said bulbous ovoid shape.

5. The medical instrument defined in claim 1, further comprising at least one straight or linear hollow needle element connected to said elongate member proximate to said one end thereof.

6. A surgical method comprising:

providing a medical instrument including a needle device with multiple fluid ejection apertures;

inserting said needle device proximate to a selected tissue mass; and

injecting sufficient fluid through said apertures to elevate said tissue mass from surrounding tissues.

7. The method defined in claim 6 wherein said tissue mass is a polyp, said needle device being inserted into a patient via an endoscope.

8. The method defined in claim 7 wherein said needle device includes multiple needle elements, the inserting of said needle device including inserting all of said needle elements into said tissue mass.

9. The method defined in claim 8 wherein at least some of said fluid ejection apertures are disposed at spaced locations along one of said needle elements, the injecting of fluid including forcing fluid into said tissue mass via said some of said fluid ejection apertures.

10. The method defined in claim 6 wherein said needle device includes a needle shaft, at least some of said fluid ejection apertures being disposed at spaced locations along said shaft, the injecting of fluid including forcing fluid into said tissue mass via said some of said fluid ejection apertures.

11. A medical instrument assembly comprising:

a catheter insertable into a biopsy channel of an endoscope; and

a medical instrument made of a memory material manufactured to have a first configuration at room temperature and to assume a second configuration upon attaining a predetermined activation temperature higher than room temperature, said instrument being removably disposed inside said catheter.

12. The instrument defined in claim 11 wherein said instrument includes a needle element, said second configuration being a nonlinear shape.

13. The instrument defined in claim 12 wherein said needle element is made of an electrically resistant material so that conduction of current through said needle element elevates the temperature thereof.

14. The instrument defined in claim 12 wherein said instrument includes a plurality of needle elements each having a nonlinear use configuration automatically assumed upon attainment of said activation temperature.

15. The instrument defined in claim 12 wherein said needle element is hollow.

16. The instrument defined in claim 11 wherein said activation temperature is higher than sterilization temperatures.

17. A surgical method comprising:

providing a catheter;

providing an instrument having a first configuration at room temperature;

inserting said catheter into a patient;

thereafter inserting said instrument into the patient through said catheter;

after inserting said instrument into the patient, heating said instrument to an activation temperature above room temperature;

upon the attainment of said activation temperature by said instrument, automatically deforming said instrument to a second configuration different from said first configuration, the deforming of said instrument occurring by virtue of the attainment of said activation temperature; and

using said instrument in said second configuration to perform an operation on internal body tissues of the patient.

18. The method defined in claim 17 wherein the heating of said instrument includes conducting an electrical current through at least a portion of said instrument.

19. The method defined in claim 17 wherein said activation temperature is higher than sterilization temperatures.

20. A medical instrument comprising a needle flexible enough to traverse a biopsy channel of a flexible endoscope and stiff enough for insertion into organic tissues of a patient, said needle being at least 6 mm long.

21. The instrument defined in claim 20 wherein said needle is made of a memory shape material.

22. The instrument defined in claim 20 wherein said memory shape material has a first configuration at room temperature and a second configuration that is automatically assumed upon an increase in temperature of said memory shape material to a predetermined activation temperature above room temperature.

23. A surgical method comprising:

providing an instrument having a first configuration at room temperature;

inserting said instrument into a patient;

after inserting said instrument into the patient, heating said instrument to an activation temperature above room temperature;

upon the attainment of said activation temperature by said instrument, automatically deforming said instrument to a second configuration different from said first configuration, the deforming of said instrument occurring by virtue of the attainment of said activation temperature; and

using said instrument in said second configuration to perform an operation on internal body tissues of the patient.

24. The method defined in claim 23 wherein the heating of said instrument includes conducting an electrical current through at least a portion of said instrument.

25. The method defined in claim 24, further comprising delivering said instrument to a surgical site in the patient via a catheter, said electrical current being conducted through at least one conductor extending along said catheter.

26. The method defined in claim 23 wherein said instrument includes a needle element, said use configuration being a nonlinear shape.

27. A medical instrument having at least a portion made of a memory material manufactured to have a first configuration at room temperature and to assume a second configuration upon attaining a predetermined activation temperature higher than room temperature.

28. The instrument defined in claim 27 wherein said portion includes a needle element, said second configuration being a nonlinear shape.

29. The instrument defined in claim 28, further comprising a catheter provided at a distal end with a collar, said needle element being disposable in contact with said collar, said collar being made of an electrically resistive material for heating said needle element, also comprising means operatively couplable to said collar for generating an electrical current therein.

30. The instrument defined in claim 28 wherein said needle element is made of an electrically resistant material so that conduction of current through said needle element elevates the temperature thereof.

31. The instrument defined in claim 28 wherein said portion includes a plurality of needle elements each having a nonlinear use configuration automatically assumed upon attainment of said activation temperature.

32. The instrument defined in claim 27 wherein said instrument is small enough to traverse a biopsy channel of a flexible endoscope.

33. A medical therapeutic method comprising:

providing a hollow needle having a plurality of apertures spaced from one another longitudinally along said needle;

inserting said needle into tissues along and substantially parallel to a vascular lumen; and

thereafter injecting a fluid substantially simultaneously from apertures into said tissues.

34. The method defined in claim 33 wherein said needle is made of a memory material manufactured to have a first configuration at room temperature and to assume a second configuration upon attaining a predetermined activation temperature higher than room temperature.

35. The method defined in claim 34 wherein said needle is made of an electrically resistant material so that conduction of current through said needle element elevates the temperature thereof.

36. The method defined in claim 33 wherein said tissues are taken from the group consisting of a vascular wall and internal body tissues adjacent to a blood vessel having said lumen.

37. A subcutaneous medical treatment method comprising:

providing a hollow needle having a plurality of apertures spaced from one another longitudinally along said needle;

inserting said needle into subcutaneous tissues along and substantially parallel to a skin surface; and

thereafter injecting a fluid substantially simultaneously from apertures into said tissues.

38. The method defined in claim 37 wherein said fluid is taken from the group consisting of a collagen composition, an anesthesia composition, and a chemotherapeutic composition.

39. A surgical method comprising:

providing a medical instrument including a needle device with multiple fluid ejection apertures;

inserting said needle device into a polyp so that said apertures are distributed through at least a substantial portion of said polyp; and

injecting a marker fluid substantially simultaneously through said apertures to mark said polyp.

40. A medical method comprising:

providing a tubular member having, at one end, a plurality of hollow needle elements;

placing distal tips of said needle elements in contact with organic tissues of a patient about a presented tissue mass;

thereafter feeding a fluid through said tubular member and through said needle elements to inject said fluid into said organic tissues to generate a peduncle beneath said tissue mass; and

using a cauterization snare to cut through said peduncle and sever said tissue mass.

41. The method defined in claim 40 wherein said needle elements are at least partially made of resilient material with a memory, the placing of said needle elements including inserting said needle elements in at least partially collapsed configuration into the patient, further comprising expanding said needle elements from said collapsed configuration to an at least partially opened configuration after the inserting of said needle elements into the patient and prior to the placing of said distal tips into contact said organic tissues.

42. A medical method comprising:

providing a tubular member having, at one end, a plurality of hollow needle elements;

placing distal tips of said needle elements in contact with organic tissues of a patient about a bleeding site; and

thereafter feeding a blood-flow reducing agent through said tubular member and through said needle elements to inject said agent into said organic tissues to stem the bleeding at said site.

43. The method defined in claim 42 wherein said needle elements are at least partially made of resilient material with a memory, the placing of said needle elements including inserting said needle elements in at least partially collapsed configuration into the patient, further comprising expanding said needle elements from said collapsed configuration to an at least

partially opened configuration after the inserting of said needle elements into the patient and prior to the placing of said distal tips into contact said organic tissues.

44. The method defined in claim 42 wherein said blood-flow reducing agent is a sclerosing composition.

45. A medical method comprising:

inserting an endoscope into a patient;

moving an elongate needle through a biopsy channel of said endoscope, said needle having a length of greater than one centimeter and being flexible to negotiate bends in said biopsy channel;

ejecting said needle from said biopsy channel;

subsequently inserting said needle into internal tissues of the patient proximate to a distal end of said endoscope; and

injecting fluid into said internal tissues via the inserted needle.

46. The method defined in claim 45 wherein said needle has a memory for a nonlinear configuration, said needle assuming said configuration upon ejection from said biopsy channel.

47. The method defined in claim 46, further comprising conducting electrical energy through said needle after moving of said needle through said biopsy channel, thereby heating said needle to a predetermined activation temperature at which said needle forms said configuration.

48. A medical method comprising

providing a medical instrument including at least one needle element made of an electrically resistant material, said needle being preformed to assume a desired use configuration upon attainment of a predetermined activation temperature above room temperature;

inserting said needle into a patient; thereafter heating said needle to said activation temperature so that said needle assumes said desired use configuration; and

subsequently manipulating said needle inside the patient to engage internal tissues with said needle in said desired use configuration.

49. The method defined in claim 48 wherein the inserting of said needle includes moving said needle though a biopsy channel of an endoscope inserted into the patient.

50. A medical method comprising:

providing a medical instrument including a plurality of needle elements all made of an electrically resistant material, said needle elements being preformed to assume respective desired use configurations upon attainment of a predetermined activation temperature above room temperature;

inserting said needle elements substantially simultaneously through a tubular member into a patient;

thereafter heating said needle elements to said activation temperature so that said needle elements assume the respective desired use configurations;

moving said needle elements inside the patient to engage internal tissues with said needle elements; and

using said needle elements in said respective desired use configurations to perform a procedure on the internal tissues.

51. The method defined in claim 50 wherein the inserting of said needles includes moving said needles through a biopsy channel of an endoscope inserted in the patient.